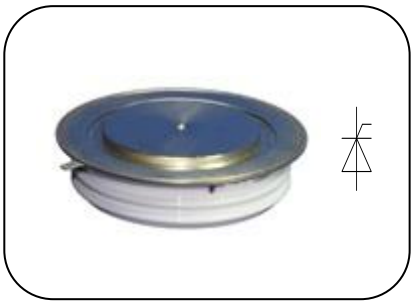
Features

- Interdigitated amplifying gates
- Fast turn-on and high di/dt
- Low switching losses

Typical Applications

- Inductive heating
- Electronic welders
- Self-commutated inverters

$I_{T(AV)}$	**2240A**
V_{DRM}/V_{RRM}	**800~1800V**
t_q	**30~60μs**
I_{TSM}	**28 kA**
I^2t	**3920 10^3A^2S**



SYMBOL	CHARACTERISTIC	TEST CONDITIONS		T_j(℃)	VALUE			UNIT
					Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180°half sine wave 50Hz Double side cooled,	T_C=55℃	125			2240	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms		125	800		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}		125			160	mA
I_{TSM}	Surge on-state current	10ms half sine wave		125			28	kA
I^2t	I^2t for fusing coordination						3920	A^2s*10^3
V_{TO}	Threshold voltage			125			1.45	V
r_T	On-state slope resistance						0.21	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=4000A, F=35kN		125			2.29	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=0.67V_{DRM}		125			500	V/μs
di/dt	Critical rate of rise of on-state current	V_{DM}= 67%V_{DRM} to 3000A Gate pulse t_r ≤0.5μs I_{GM}=1.5A		125			1200	A/μs
Q_{rr}	Recovery charge	I_{TM}=2000A,tp=2000μs, di/dt=-60A/μs,V_R=50V		125		900		μC
tq	Circuit commutated turn-off time	I_{TM}=2000A,tp=2000μs, V_R =50V dv/dt=30V/μs ,di/dt=-60A/μs		125	30		60	μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A		25	40		450	mA
V_{GT}	Gate trigger voltage				0.9		4.5	V
I_H	Holding current				20		1000	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}		125	0.3			V
$R_{th(j-c)}$	Thermal resistance Junction to case	DC, double side cooled Clamping force 35kN					0.012	℃/W
$R_{th(c-h)}$	Thermal resistance case to heat sink						0.003	
F_m	Mounting force				30		40	kN
T_{stg}	Stored temperature				-40		140	℃
W_t	Weight					880		g
Outline	P15							

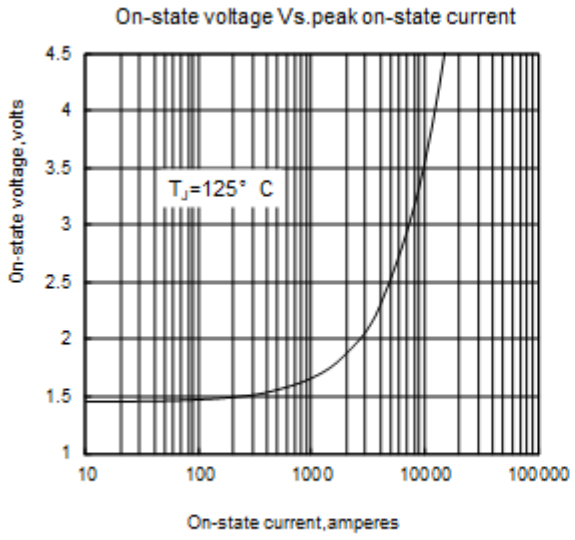


Fig1

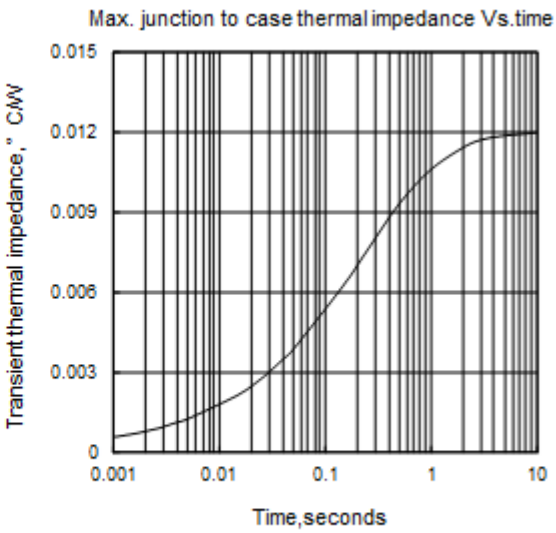


Fig2

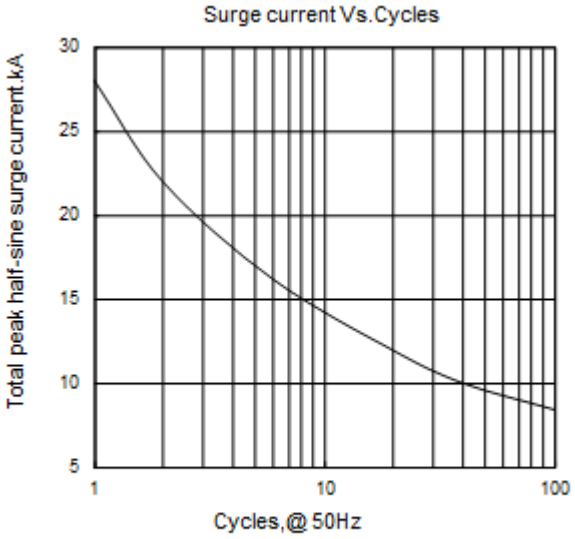


Fig3

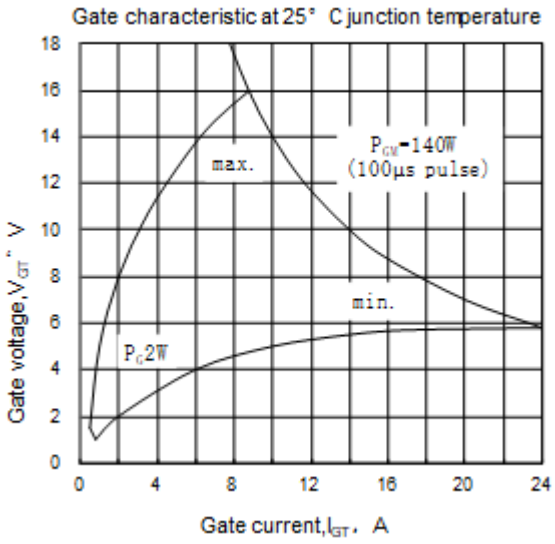


Fig4

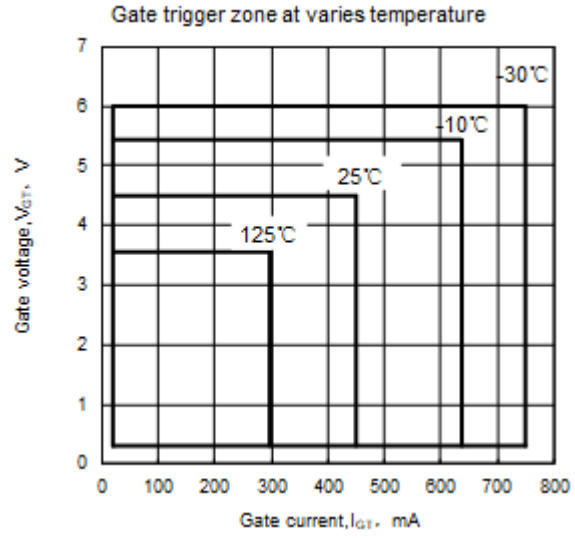
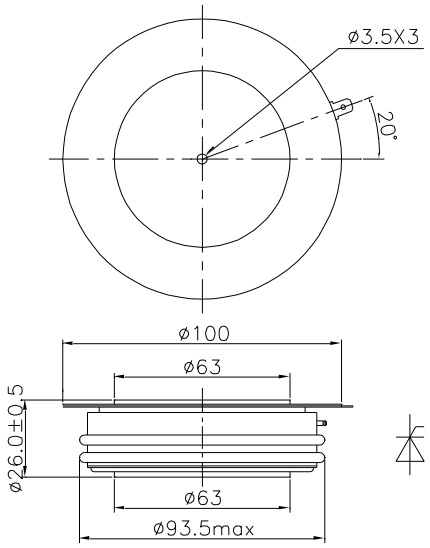


Fig5



NIps reserves the right to change specifications without notice.